

REMARKS/ARGUMENTS

Claims 1-39 are pending in the present application. By this response, claims 11, 22, 34, and 39 are cancelled. Claims 1, 12, 23, 24, 35, and 36 are amended. Support for the amendment of claims 1, 12, 23, 24, 35, and 36 can be found in the specification at least at page 4, lines 1-19; page 15, lines 18-24; and page 31, lines 16-22. Reconsideration of the claims is respectfully requested.

I. Interview Summary

Applicant thanks Examiner Nalven for all the courtesies extended Applicant's representative during the February 22, 2007 telephone interview. During the interview, Applicant's representative discussed the manner in which *Aiu* and *Barrett* fail to teach and/or suggest the features recited in the presently claimed invention. The Examiner acknowledged that *Barrett* failed to teach or suggest the feature, "adding an identifier of the sending device to a list based on the comparison of the second data value to the first data value", which is present in claim 5. The remaining arguments discussed, as well as additional reasons that the claims are not anticipated or rendered obvious, are set forth in the remarks below.

II. 35 U.S.C. § 101

The Examiner has rejected claims 12-22 and 35 under 35 U.S.C. § 101 as being directed towards non-statutory subject matter. This rejection is respectfully traversed.

The Examiner states that:

Claims 12-22 and 35 are rejected under 35 U.S.C. 101 because the cited claims are directed towards a computer readable medium which has been defined by the specification to include transmission type media including digital and analog communication links, wired or wireless communication links, radio frequency communications, and light wave communications. Transmission type media are forms of signals which are not statutory subject matter.

Office Action dated January 24, 2007, p. 2.

Section 101 of Title 35 U.S.C. sets forth the subject matter that can be patented:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

However, the rejection is incorrect in view of new guidelines covering patentability of claims directed to a process in a computer readable medium. The USPTO guidelines for evaluating computer readable medium encoded with functional descriptive material, such as a computer program, expressly

readable medium encoded with functional descriptive material, such as a computer program, expressly states that a claim to such computer readable medium, when so encoded, is statutory subject matter.

USPTO, *Interim Guideline for Examination of Patent Application for Patent Subject Matter Eligibility* (26 Oct. 2005) (hereinafter “The Guideline”). The Guideline provides, in relevant part:

“[A] claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure’s functionality to be realized, and is thus statutory”.

Id., p. 52.

The Guideline further provides:

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O’Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in § 101.

...

These interim guidelines propose that such signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of § 101. Public comment is sought for further evaluation of this question.

Id., pp. 55-56.

For example, amended claim 12 is as follows:

12. A computer program product in a computer readable medium for authenticating a data processing device, comprising:
 - first instructions for receiving an electrical signal having a data signal added therein, wherein the electrical signal is indicative of a location of the data processing device;
 - second instructions for extracting the data signal from the electrical signal;
 - third instructions for comparing data of the data signal to security information stored in the data processing device; and
 - fourth instructions for permitting operation of the data processing device based on the comparison of the data of the data signal to the security information.

Claim 12 is directed to a computer program product in a computer readable medium.

Furthermore, the computer program product is for use in a data processing system. As The Guideline provides, “a computer readable medium with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure’s functionality to be realized” is statutory. Because claim 12 recites a computer program product, along with the other recited steps, claim 12 does describe a data structure that defines structural and functional interrelationships between the data structure and the computer software and

hardware components, which permit the data structure's functionality to be realized. Thus, claim 12 is patentable subject matter under 35 U.S.C. § 101, as explained under The Guideline.

In addition, claim 12 does not recite a signal. Rather, the claim recites a "computer readable medium", in which a signal may be embedded. Claim 12 claims functional descriptive material encoded on a computer readable medium and does not claim signals encoded with functional descriptive material. For this reason, claim 12 falls under allowable statutory matter under 35 U.S.C. § 101. This assertion is fully supported by the section of the specification that the Examiner has cited. Relevant portions of that section are quoted below for convenience:

It is important to note that while the present invention has been described in the context of a fully functioning data processing system, those of ordinary skill in the art will appreciate that the processes of the present invention are capable of being distributed in the form of a computer readable medium of instructions and a variety of forms and that the present invention applies equally regardless of the particular type of signal bearing media actually used to carry out the distribution. Examples of computer readable media include recordable-type media, such as a floppy disk, a hard disk drive, a RAM, CD-ROMs, DVD-ROMs, and transmission-type media, such as digital and analog communications links, wired or wireless communications links using transmission forms, such as, for example, radio frequency and light wave transmissions. The computer readable media may take the form of coded formats that are decoded for actual use in a particular data processing system.

Specification, p. 18, l. 23 – p. 19, l. 11.

The specification and claim 12 together are statutory subject matter because the claim is directed towards the medium, and not to the radio frequency or the light wave signals that may inherently be used in such media technologies. The use of radio frequency or light wave transmission as a method of encoding or recording the computer program on to such medium does not render the medium itself nonstatutory. Even in the case of a CD-ROM, a laser form of light wave is used for accomplishing the encoding/recording of the information on to the CD-ROM, yet the CD-ROM remains a well-accepted computer readable medium. Encoding the air or glass fiber medium with radio frequency or light wave similarly cannot render the air or glass fiber medium nonstatutory under 35 U.S.C. § 101.

Thus, based on the MPEP and The Guideline, claim 12 is statutory under 35 U.S.C. § 101. Subject matter of claims 13-22 and 35 is also statutory because they contain features similar to those in claim 12 for the purpose of this rejection. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 12-22 and 35 under 35 U.S.C. § 101.

III. 35 U.S.C. § 102, Anticipation

The Examiner rejected claims 1-4, 8-15, 19-28, and 32-39 under 35 U.S.C. § 102(e) as anticipated by *Aiu et al.*, US Patent Application Publication No. 2004/0003079 (June 21, 2002) (hereinafter “*Aiu*”). This rejection is respectfully traversed.

The Examiner states that:

With regards to claims 1, 12, 23, and 25, *Aiu* teaches receiving an electrical signal having a data signal added therein (*Aiu*, paragraphs 0014-0015, receives and extracts allowances from remote server), extracting the data signal from the electrical signal (*Aiu*, paragraphs 0014-0015, receives and extracts allowances from remote server), comparing data of the data signal to security information stored in the data processing device (*Aiu*, paragraphs 0036-0037, compares received allowances to stored history), and permitting operation of the data processing device based on the comparison of the data signal to the security information (*Aiu*, paragraph 0037).

Office Action dated January 24, 2007, p. 3.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983). In this case, each and every feature of claim 1 is not identically shown in the cited reference, arranged as they are in amended claim 1.

Amended claim 1 now incorporates the feature, “wherein the electrical signal is indicative of a location of the data processing device”, previously recited by claim 11. Amended claim 1 is as follows:

1. A method of authenticating a data processing device, comprising:
receiving an electrical signal having a data signal added therein, wherein the electrical signal is indicative of a location of the data processing device;
extracting the data signal from the electrical signal;
comparing data of the data signal to security information stored in the data processing device; and
permitting operation of the data processing device based on the comparison of the data of the data signal to the security information.

Aiu fails to anticipate claim 1 because *Aiu* does not disclose the features, “receiving an electrical signal having a data signal added therein, wherein the electrical signal is indicative of a location of the data processing device”, and “permitting operation of the data processing device based on the comparison of the data of the data signal to the security information”, as recited in claim 1.

The Examiner believes *Aiu* discloses the feature receiving an electrical signal having a data signal added therein, “*wherein the electrical signal is indicative of a location of the data processing device*”, in the following passage:

Control allowances 104 that are “user centric” are based on at least one individual user 120 rather than specific device(s) 108 or application(s) 116. However, one could define the user as anyone that interacts with a particular device. Users 120 may be assigned different allowances 104 for different types of devices 108 or applications/services 116. In addition, these control allowances work across similar devices 108 and applications 116. For instance, if a child is blocked from watching TV in their room, we wouldn't want a situation where they could go to another room and side step the control allowance 104. Similarly such TV watching restrictions should be in place even when the child was visiting their grandparents in a different household.

Aiu, paragraph 0022.

As can be seen, *Aiu* teaches that the control allowances governing the use of devices, applications, or services can be based on one or more users operating any number of devices, applications, or services. *Aiu* also teaches that control allowances can govern the one or more users operating specific devices, applications, or services. However, neither paragraph 0022 nor any other portion of *Aiu* teaches that the electrical signal is *indicative of a location of the data processing device*, as recited in claim 1. In contrast, *Aiu* specifically teaches that the control allowances are “user centric” and are based on at least one individual *user* regardless of location. (*Aiu*, paragraph 0022) For example, *Aiu* explicitly teaches that the control allowances apply equally well without regard to the fact that a user may be located in the user's room, in another room of the same household, or in a different household. (*Aiu*, paragraph 0022) Furthermore, *Aiu* would have no reason to teach that an electrical signal is indicative of location because *Aiu* is directed toward regulating *whether* a user is permitted to use a device or application, and *how much* use is permitted. *Aiu* is not concerned with *where* the use is occurring. Thus, because the control allowances work without regard to location and independent of location, the control allowances are not indicative of a location of the data processing device. Accordingly, *Aiu* fails to teach the feature receiving an electrical signal having a data signal added therein, “*wherein the electrical signal is indicative of a location of the data processing device*”, as recited in amended claim 1.

Aiu also does not teach or disclose the feature, “permitting operation of the data processing device based on the comparison of the data of the data signal to the security information”, as recited by claim 1. The Examiner, however, believes *Aiu* teaches this feature in the following passage:

CA evaluation module 110 compares received allowance criteria 104 to data in history file 124 to determine if the device 108 or hosted service should be restricted based on the allowance criteria 104. If a scope of allowance indicated by received allowance criteria 112 is met, indicating that a particular device 108 or application 116 be restricted in some manner (e.g., shut down, or otherwise

reduced in functionality (e.g., an e-mail application may be configured to only read e-mail and not edit or send e-mail), and so on), CA evaluation module 110 displays a notification message or video (e.g., message/video 126, see also the <Notification> [Yes/No] </Notification> tag pair of TABLE 1) before restricting the device and/or application.

Aiu, paragraph 0037.

Here, *Aiu* teaches that an evaluation module determines whether a device or service should be restricted based upon a comparison of received allowance criteria to data in a history file. If the allowance criteria indicate that a device or service is to be restricted, the evaluation module displays a notification to a user before restricting the device or application. However, neither paragraph 0037 nor any other portion of *Aiu* teaches the feature, “permitting operation of the data processing device based on the comparison of the data of the data signal to the security information”, as recited in claim 1. In contrast, *Aiu* teaches that a user’s operation of a device or service is *initially permitted*, but then *later restricted* according to a comparison of the allowance criteria and the data within the history file. For example, in paragraph 0037, which was reproduced above, *Aiu* specifically states, in relevant part, “CA evaluation module 110 displays a notification message or video...*before restricting the device and/or application.*”

The subsequent restriction after operation of the data processing device is first permitted disclosed in *Aiu*, is necessary in order to allow a user to log off the device, or to allow a user to override the allowance criteria (*Aiu*, paragraph 0038-0039). By overriding the allowance criteria, a user is able to continue using a device or application. *Id.* Claim 1, on the other hand, teaches *permitting operation* of the data processing device *based on the comparison* of the data of the data signal to the security information. In other words, because *Aiu* and claim 1 teach that the permission for operating a data processing device is given at different times, *Aiu* fails to teach the feature, “permitting operation of the data processing device based on the comparison of the data of the data signal to the security information”, as recited in claim 1.

For the reasons stated above, *Aiu* fails to teach all the features of claim 1 as amended. Therefore, *Aiu* does not anticipate claim 1. Furthermore, *Aiu* also does not anticipate claims 12, 23, 24, 35, and 36 because these claims recite features similar to those in amended claim 1. Since dependent claims 2-6, 8-11, 13-17, 19-22, 25-28, 32-34, and 37-39 depend from one of the independent claims, the same distinctions between *Aiu* and the invention recited in these independent claims apply for these dependent claims. Additionally, claims 2-6, 8-11, 13-17, 19-22, 25-28, 32-34, and 37-39 claim other additional combinations of features not taught by the reference.

For example, *Aiu* fails to teach the step of “storing a record of the data signal in a history data structure, wherein the history data structure includes a data value of the data signal and a timestamp of the data signal”, as recited in claims 3, 14, and 27. The Examiner, however, believes *Aiu* discloses this in the following passage:

Control allowances 104 can be based on a virtually unlimited number measures or criteria, as suitable to regulating individual, total, and/or incremental use of device 108 and/or application 116 hosted technologies. Such criteria include, for example, user identity, device type, time, number of device accesses, total or incremental cost of device/service use, a user's age, and so on. Accordingly, control allowances 104 are substantially customizable, flexible, and scalable across many different users, devices, and technologies.

Aiu, paragraph 0020.

As can be seen, *Aiu* teaches only that control allowances can be customized based on any number of criteria, such as, for example, user identity, device type, time, number of device accesses, cost of use, and user's age. However, neither this paragraph nor any other portion of *Aiu* discloses “storing a record of the data signal in a history data structure, wherein the history data structure includes a data value of the data signal and a timestamp of the data signal”. In fact, *Aiu* fails to mention timestamps anywhere in its specification. Thus, *Aiu* cannot and does not anticipate claims 3, 14, and 27. In addition, because claims 4, 15, 28, and 38 also recite timestamps, *Aiu* does not anticipate claims 4, 15, 28, and 38 at least for the same reasons stated above.

Consequently, the rejection of claims 1-4, 8-15, 19-28, and 32-39 under 35 U.S.C. § 102 has been overcome. Furthermore, *Aiu* does not teach, suggest, or give any incentive to make the needed changes to reach the presently claimed invention. *Aiu* actually teaches away from the presently claimed invention because *Aiu* teaches a “user centric” system for regulating use of devices which is independent of location, as opposed to receiving an electrical signal having a data signal added therein, *wherein the electrical signal is indicative of location*, as in the presently claimed invention. Absent the Examiner pointing out some teaching or incentive to implement *Aiu* and receiving an electrical signal having a data signal added therein, wherein the electrical signal is indicative of location, one of ordinary skill in the art would not be led to modify *Aiu* to reach the present invention when the reference is examined as a whole. Absent some teaching, suggestion, or incentive to modify *Aiu* in this manner, the presently claimed invention can be reached only through an improper use of hindsight using Applicants' disclosure as a template to make the necessary changes to reach the claimed invention.

IV. 35 U.S.C. § 103, Obviousness

The Examiner rejected claims 5, 6, 16, 17, 29, and 30 under 35 U.S.C. § 103(a) as obvious over *Aiu* in view of *Barrett* US Patent No. 6,832,321 (hereinafter "*Barrett*"). In the Office Action dated January 24, 2007, the Examiner acknowledged that *Aiu* failed to teach or suggest the feature, "adding an identifier of the sending device to a list based on the comparison of the second data value to the first data value, wherein if the second data value matches the first data value, the list is a list of authorized devices, and wherein if the second data value does not match the first data value, the list is a list of unauthorized devices", as recited in claim 5. Nevertheless, the Examiner asserted that *Barrett* supplied the missing feature. However, during the telephone interview conducted on February 22, 2007, the Examiner acknowledged that *Barrett* also failed to teach or suggest the feature, "adding an identifier of the sending device to a list based on the comparison of the second data value to the first data value, wherein if the second data value matches the first data value, the list is a list of authorized devices, and wherein if the second data value does not match the first data value, the list is a list of unauthorized devices", as recited in claim 5. Thus, because the preceding feature is not shown or suggested in either *Aiu* or *Barrett*, alone or in combination, a *prima facie* obviousness rejection as to claim 5 has not been stated. Likewise, because claims 16 and 29 recite substantially similar features as claim 5, a *prima facie* obviousness rejection has also not been stated as to claims 16 and 29. Furthermore, because claims 6, 17, and 30 depend from one of claims 5, 16, and 29, a *prima facie* obviousness rejection as to claims 6, 17, and 30 has not been stated at least by virtue of their dependency from one of claims 5, 16, and 29. Therefore, the rejection of claims 5, 6, 16, 17, 29, and 30 under 35 U.S.C. § 103(a) as obvious over *Aiu* in view of *Barrett* has been overcome.

V. Objection to Claims

The Examiner has stated that claims 7, 18, and 31 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, Applicant respectfully requests the Examiner reconsider the objection to claims 7, 18, and 31 in light of the recent amendments to independent claims 1, 12, and 24 from which claims 7, 18, and 31 depend.

VI. Conclusion

It is respectfully urged that the subject application is patentable over *Aiu* and *Barrett* and is now in condition for allowance. The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,

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